

REMARKS

In the Official Action mailed on **3 January 2006**, the Examiner reviewed claims 1-28. Claims 2 and 16 were rejected under 35 U.S.C. §101 as claiming the same invention as that of claims 1 and 9 of prior U.S. Patent No. 6,925,411. Claims 1, 3-7, 9-15, 17-21, and 23-28 were rejected under 35 U.S.C. §102(b) as being anticipated by Knight et al (USPN 5,629,838, hereinafter “Knight”). Claims 8 and 22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Knight in view of Nabors (*Fast Capacitance Extraction of General Three-Dimensional Structures*, IEEE (1992), hereinafter “Nabors”).

Rejections under 35 U.S.C. §101

Claims 2 and 16 were rejected as claiming the same invention as that of claims 1 and 9 of prior U.S. Patent No. 6,925,411.

Applicant respectfully disagrees that claims 2 and 16 in conjunction with parent claims 1 and 15 claim the same invention as that of claims 1 and 9 of prior U.S. Patent No. 6,925,411. Specifically, U.S. Patent No. 6,925,411 is directed to a **one-dimensional vernier device** which can provide misalignment data in only one linear direction and, given two of these devices widely separated, in rotation.

In contrast, the present invention provides a **two-dimensional vernier device**, which can provide misalignment data in six degrees of alignment (see FIG. 2 and paragraph [0040] of the instant application). This is an improvement over the prior art of U.S. Patent No. 6,925,411. 35 U.S.C. §101 states: “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, **or any new and useful improvement thereof**, may obtain a patent therefor, subject to the conditions and requirements of this title.” The present invention is therefore patentable subject matter.

Rejections under 35 U.S.C. §102(b) and 35 U.S.C. §103(a)

Independent claims 1 and 15 were rejected as being anticipated by Knight. Applicant respectfully points out that the measurement techniques in Knight **do not include a vernier array** for accurate positioning of the circuit elements (see Knight, col. 36, line 25 to col. 37, line 8).

In contrast, the present invention **includes a two-dimensional vernier array** for accurately positioning the integrated circuit elements (see FIG. 5, and paragraph [0045] of the instant application). This is beneficial because it allows accurate positioning of the integrated circuit elements in six degrees of alignment. The techniques described in Knight can provide only a rough alignment and not the accurate positioning provided by the present invention.


Accordingly, Applicant has amended independent claims 1 and 15 to include the limitations of dependent claims 2 and 16, respectively, to clarify that the present invention includes a two-dimensional vernier array for accurately positioning the integrated circuit elements. These amendments find support in FIG. 5, and in paragraph [0045] of the instant application. Dependent claims 2 and 16 have been canceled without prejudice.

Hence, Applicant respectfully submits that independent claims 1 and 15 as presently amended are in condition for allowance. Applicant also submits that claims 3-14, which depend upon claim 1, and claims 17-28, which depend upon claim 15, are for the same reasons in condition for allowance and for reasons of the unique combinations recited in such claims.

CONCLUSION

It is submitted that the present application is presently in form for allowance. Such action is respectfully requested.

Respectfully submitted,

By 
Edward J. Grundler
Registration No. 47,615

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Edward J. Grundler
PARK, VAUGHAN & FLEMING LLP
2820 Fifth Street
Davis, CA 95616-7759
Tel: (530) 759-1663
FAX: (530) 759-1665
Email: edward@parklegal.com